

<b>NWS FORM E-5</b> <small>(11-88)</small> <small>(PRES. by NWS Instruction 10-924)</small>	<b>U.S. DEPARTMENT OF COMMERCE</b> <b>NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION</b> <b>NATIONAL WEATHER SERVICE</b>	<b>HYDROLOGIC SERVICE AREA (HSA)</b> <b>WFO Jackson, Mississippi</b>
<b>MONTHLY REPORT OF HYDROLOGIC CONDITIONS</b>		REPORT FOR: MONTH      YEAR <b>November    2016</b>
TO:      Hydrometeorological Information Center, W/OH2 NOAA / National Weather Service 1325 East West Highway, Room 7230 Silver Spring, MD 20910-3283		SIGNATURE <b>Bill Parker, Meteorologist In-Charge</b>
		DATE <b>12/12/2016</b>
<i>When no flooding occurs, include miscellaneous river conditions, such as significant rises, record low stages, ice conditions, snow cover, droughts, and hydrologic products issued (NWS Instruction 10-924)</i>		

X

An X inside this box indicates that no river flooding occurred within this Hydrologic Service Area.

Synopsis...

November was another warm and dry month, but we did have a couple cold fronts that allowed for more seasonable air to filter in. This month, each climate site in the HSA (Hydrologic Service Area) observed below normal rainfall. Hattiesburg received the least rain with only 1.65 inches total for the month, which marked this November as the 10<sup>th</sup> driest on record for the site. All of the other climate sites recorded more than three inches of rainfall for the month but were still about an inch below normal totals. It was also a pretty warm month. Overall, each climate site recorded at least 2 degrees above normal temperatures.

Weather Highlights...

A cold front passed through the HSA on the 4<sup>th</sup> but did not bring any rainfall to the area, just a small drop in the persistent above-normal temperatures. The first bit of rain that the HSA experienced was on the 8<sup>th</sup> when a shortwave generated over the northwestern Gulf of Mexico and then brought some moisture into southern Louisiana and Mississippi. The south-central parts of the HSA received ¼” to ¾” of rain with this system.

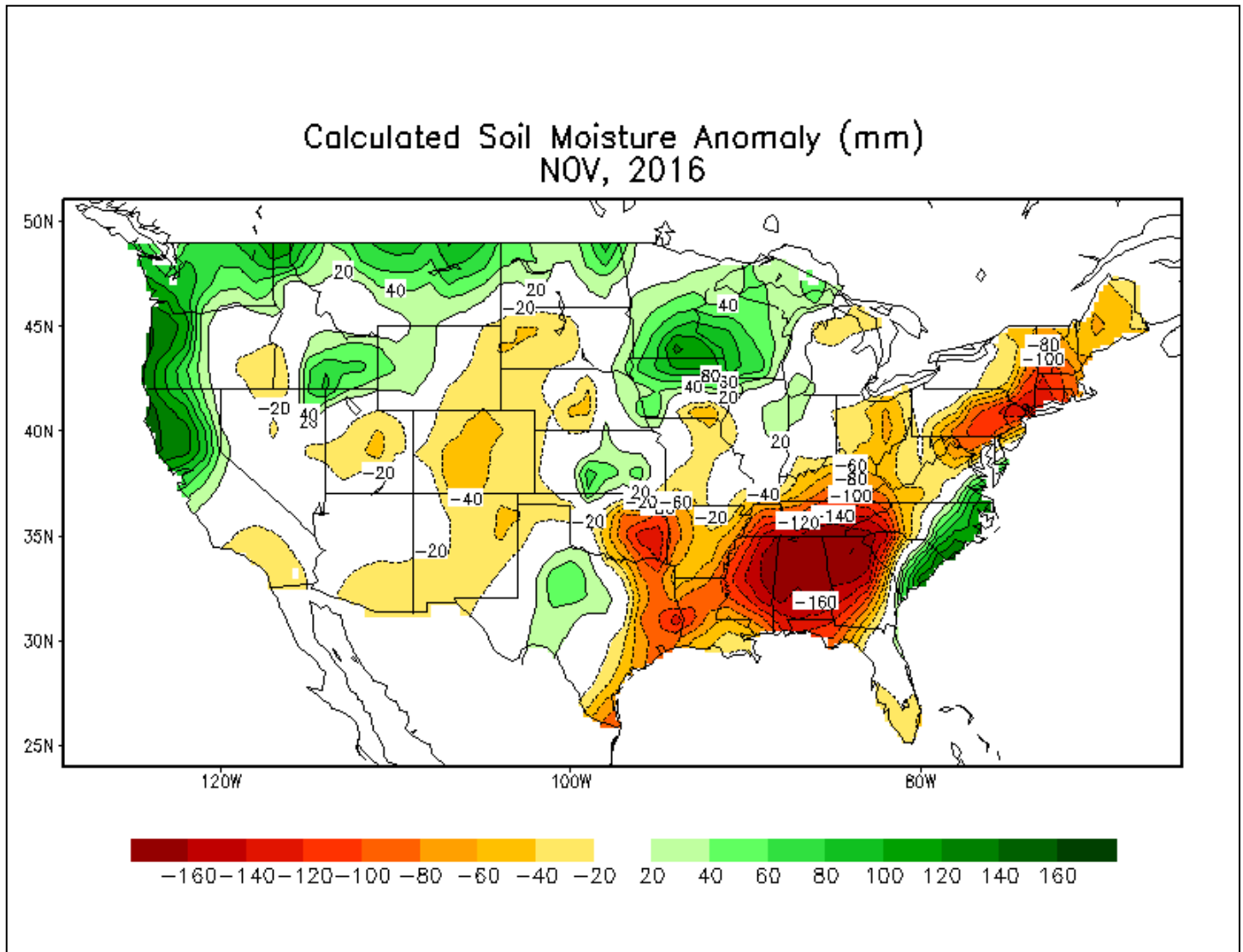
The next front passed through the region on the 12<sup>th</sup> without any excitement, and a large high pressure ushered in behind it. No precipitation was associated with the front, only a slight decrease in temperatures the next day. Another front passed through the HSA on the 15<sup>th</sup> and this time did bring some isolated ½” rainfall totals to the northeast part of the HSA.

A low pressure system developed and passed through the northern plains on the 18<sup>th</sup>. The accompanying cold front traversed through the HSA on the 19<sup>th</sup>. Due to the abundant dry air and soils in this region, it has become difficult for systems to carry moisture and rain into the HSA at this point. This system only managed to drop rain over the Delta. Locations here received up to ½” of rainfall. The same thing happened again on the 24<sup>th</sup>. This time it was only northeast Louisiana that received up to ½” rainfall as a front passed through the HSA.

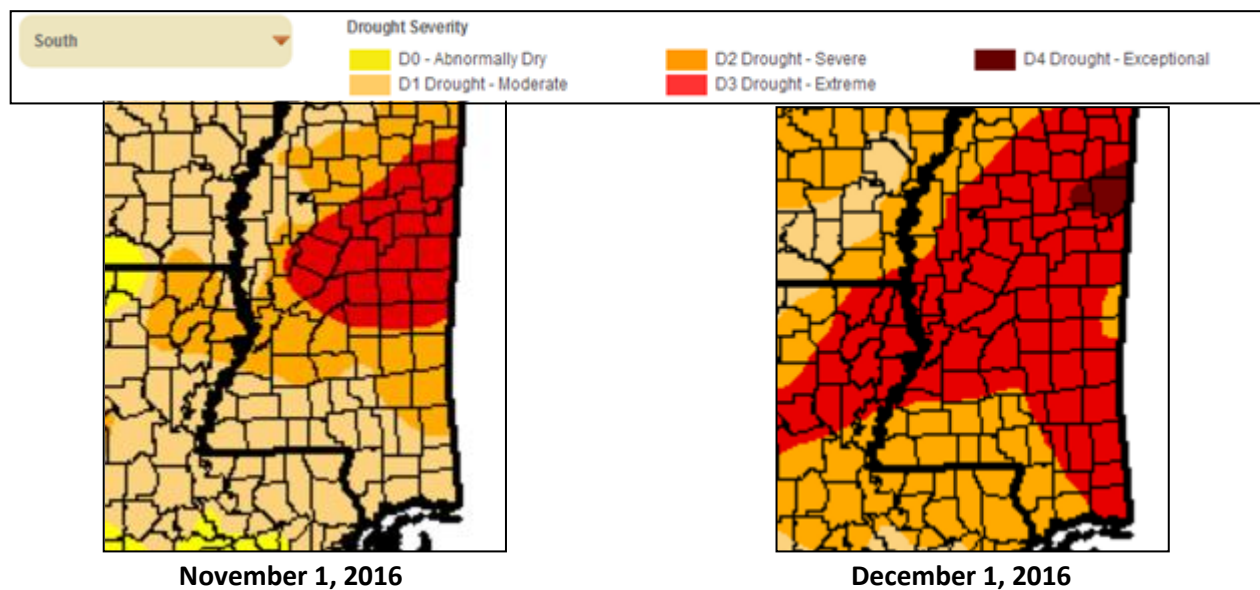
On the 28<sup>th</sup>, a powerful low pressure developed over the Rockies and tracked northeast. This system moved quickly and created a large pressure gradient ahead of its associated cold front. As this front approached the HSA, strong winds knocked down trees and powerlines throughout the region. The front itself triggered severe storms late on the 28<sup>th</sup>. The front stalled out over the HSA that night and as it redeveloped on the 29<sup>th</sup>, it caused a breakout of severe storms and five tornadoes within the HSA. This system helped relieve the ongoing drought a bit with rainfall totals ranging between 1.5” in Hattiesburg to near 4” in Meridian.

## River and Soil Conditions

### Soil Moisture Map:

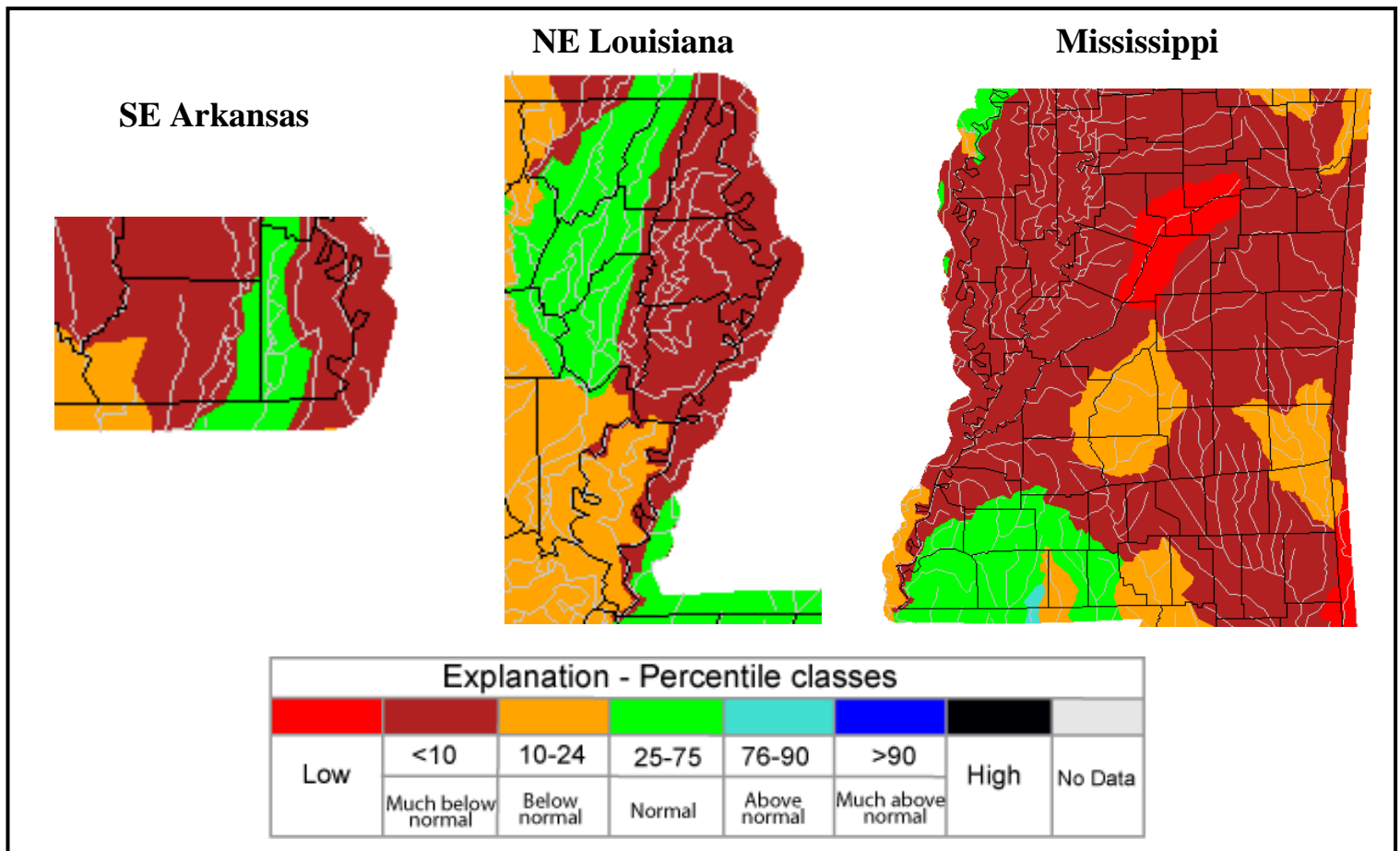


### Drought Comparison:



**Streamflow:**

The United States Geological Survey's (USGS) November 2016 river streamflow records were compared with all historical November streamflow records. Normal streamflow was only seen in the Homochitto and Bogue Chitto River basins in southwestern Mississippi and along the Boeuf River basin in southeast Arkansas and northeast Louisiana. Below normal streamflow was seen everywhere else in the HSA. Extremely low streamflow was seen on the northern part of the Big Black River basin.

**River Conditions:**

There was no river flooding during the month of November.

**Climatic Outlook and Flood Potential:**

The climatic outlook shows good chances for above normal temperatures over the next three months for the whole HSA. In regards to precipitation, the outlook indicates decent chances for below normal precipitation throughout the entire HSA. Thus, based on current soil moisture, streamflow, and the 3-month climate outlook, the flood potentials are thus:

Pearl River System: Below Normal.

Yazoo River System: Below Normal.

Big Black River System: Below Normal.

Homochitto River System: Below Normal.

Pascagoula River System: Below Normal.

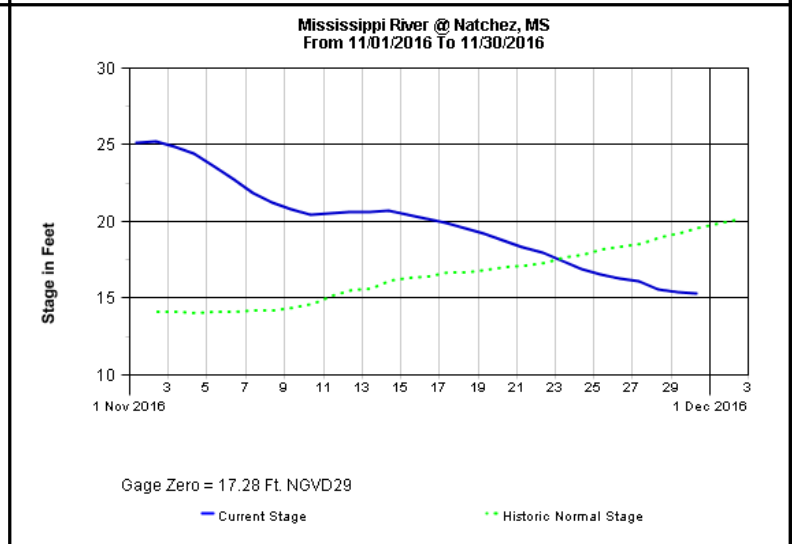
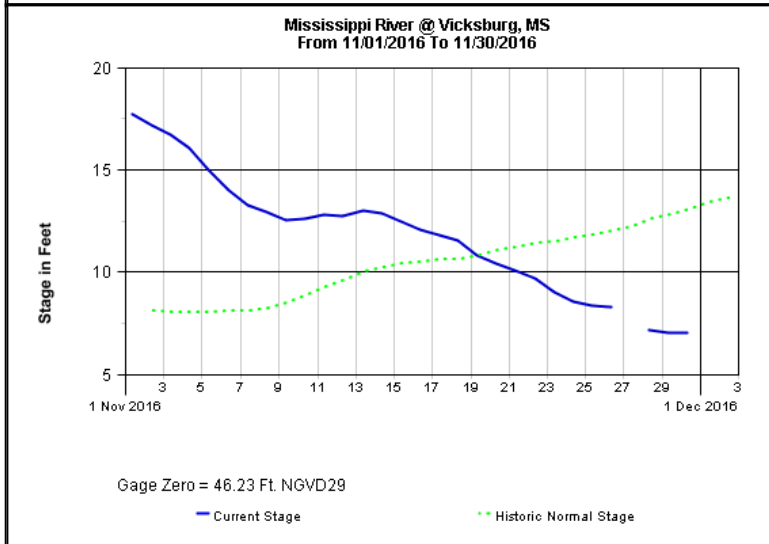
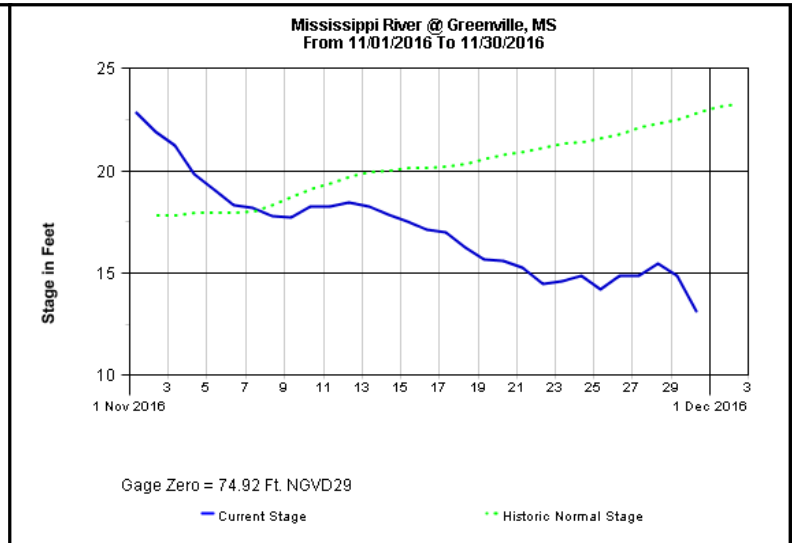
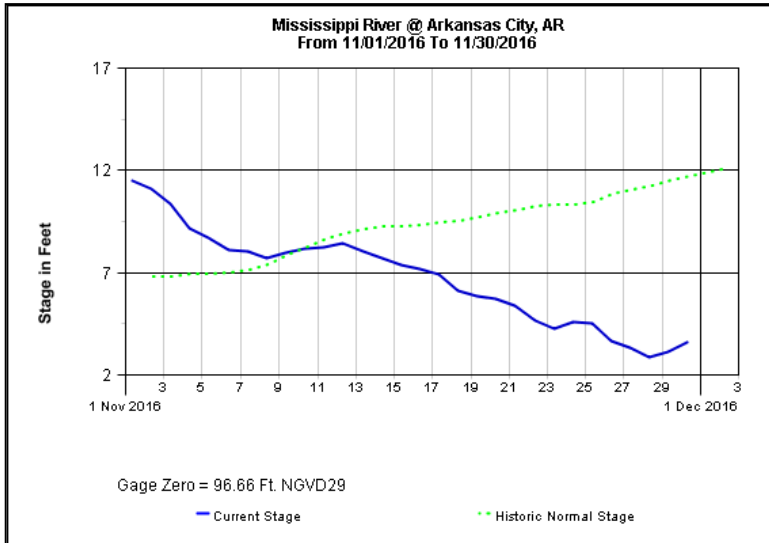
Northeast LA and Southeast AR: Below Normal.

Tombigbee River System: Below Normal.

Mississippi River: Below Normal.

# Mississippi River Plots November 2016

## Plots Courtesy of the United States Army Corps of Engineers



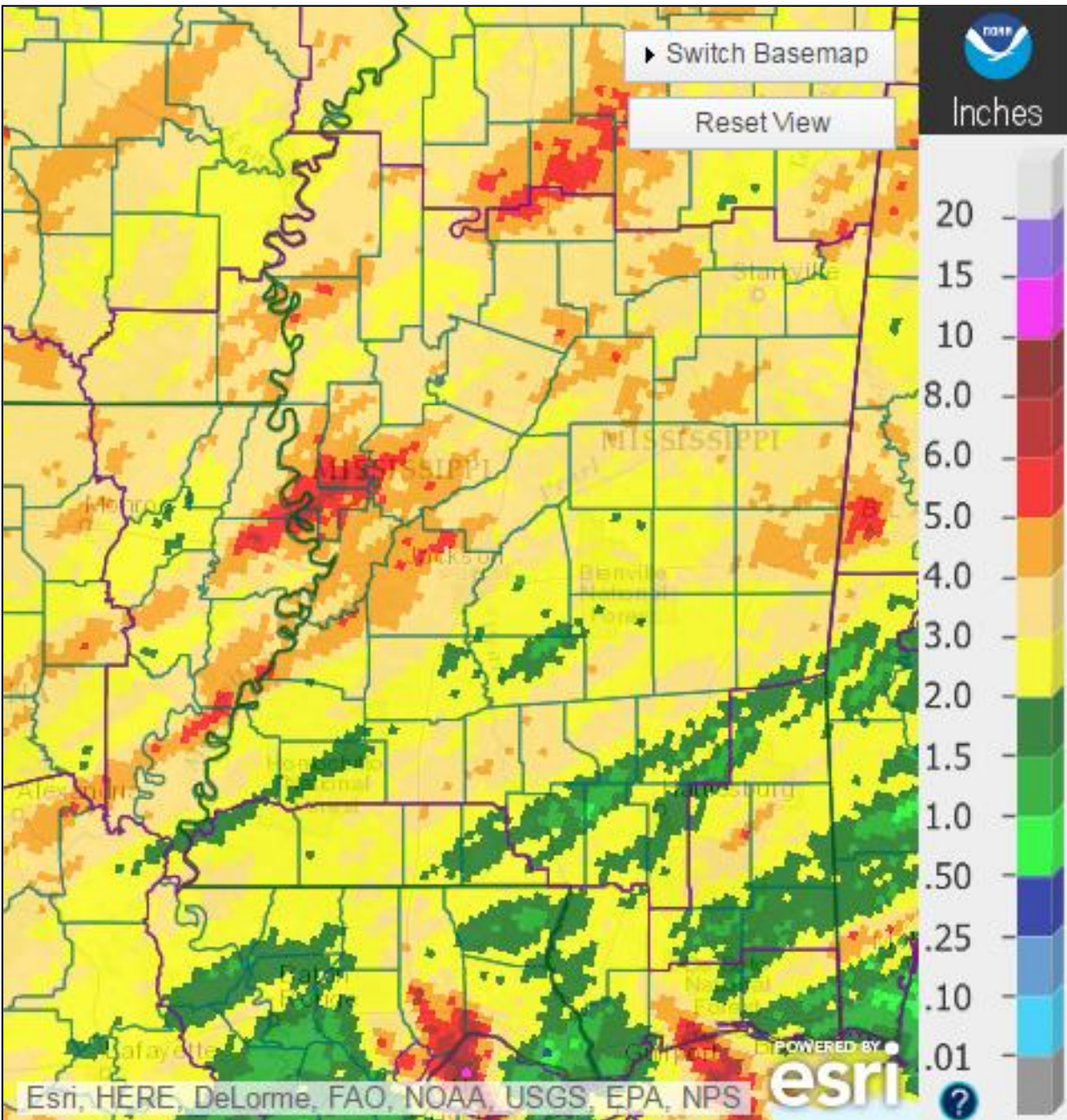
Location	Flood Stage (ft)	High Stage (ft)	Date	Low Stage (ft)	Date
Arkansas City	37	11.50	11/01	2.88	11/28
Greenville	48	22.80	11/01	13.11	11/30
Vicksburg	43	17.69	11/01	7.03	11/30
Natchez	48	25.25	11/02	15.34	11/30

## Rainfall for the Month of November

During the period from 7 am October 31<sup>st</sup> until 7 am November 30<sup>th</sup>, the largest rainfall amounts from NWS Cooperative Observers were:

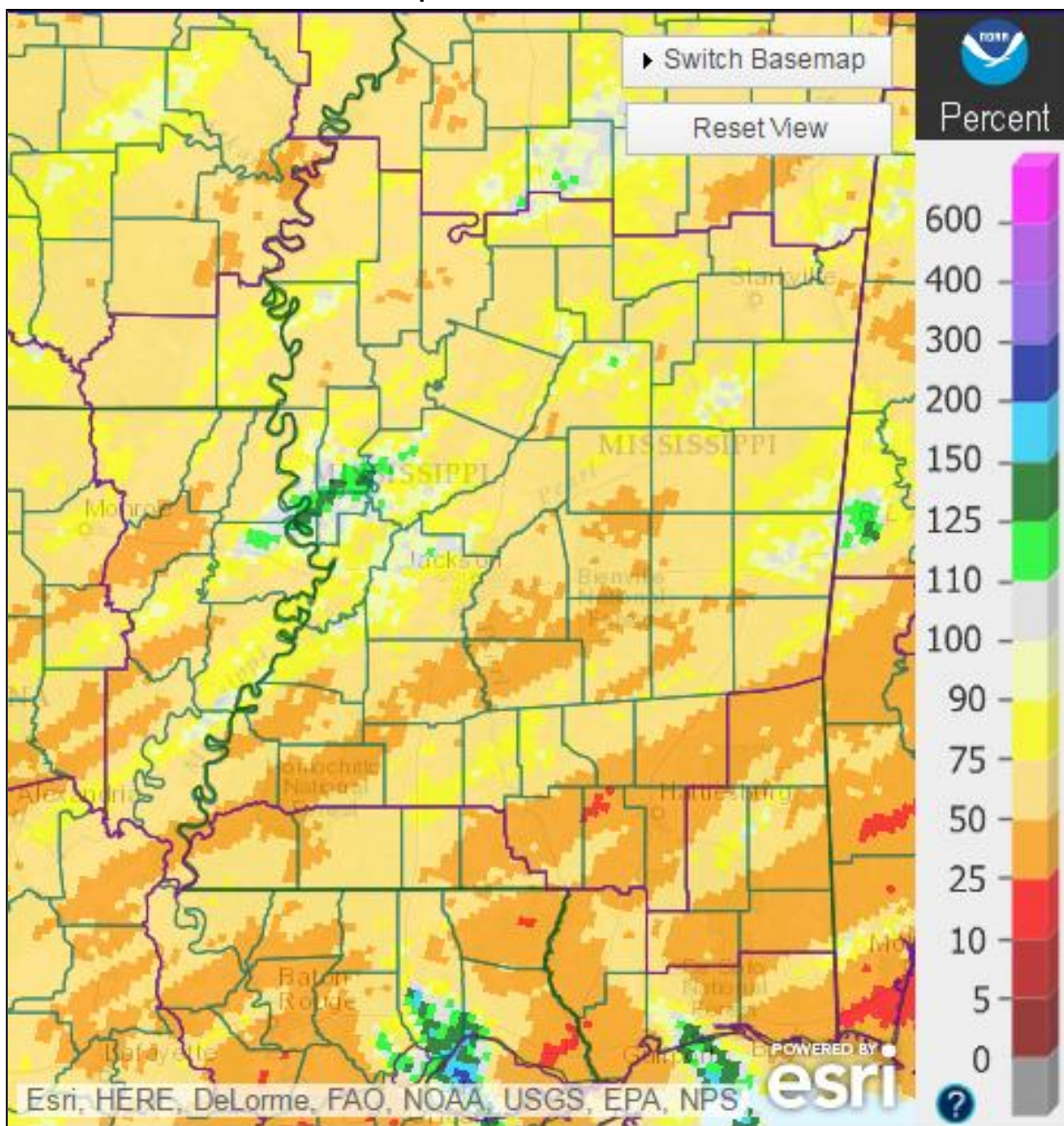
**This will be updated at a later time**

### November Rainfall Estimates:



Note: Observer rainfall and MPE in November may differ due to time differences.

## November Percent of Normal Precipitation:



Note: Observer rainfall and MPE in November may differ due to time differences.

## November Rainfall for Selected Cities:

City (Airport)	Rainfall	Departure from Normal	2016 Rainfall	2016 Departure from Normal
Jackson (KJAN)	3.63	-1.13	57.65	+8.66
Meridian (KMEI)	3.93	-1.02	41.83	-9.27
Hattiesburg (KHBG)	1.65	-2.62	56.85	+2.59
Vicksburg (KTVR)	3.15	-1.85	54.82	+5.69
Greenville (KGLH)	4.49	-0.57	47.26	+0.24
Greenwood (KGWO)	3.61	-0.91	42.81	-3.31

Total Flood Warning products issued: 0  
Total Flood Statement products issued: 0  
Total Flood Advisories MS River: 0  
Daily Climate and Ag WX Products (AGO'S) issued: 30  
Daily CoCoRaHS Rainfall Products (LCO'S) issued: 30  
Daily River and Lake Summary Products (RVD'S) issued: 30

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Note: Provisional stage and precipitation data were furnished with the cooperation of the Mississippi, Louisiana, and Arkansas National Weather Service Cooperative Observer Programs, United States Geological Survey (USGS), United States Army Corps of Engineers (USACE), Pearl River Valley Water Supply District (PRVWSD), Pat Harrison Waterway District, Pearl River Basin Development District, and the Mississippi Department of Environmental Quality.

cc: USGS Little Rock District  
USGS Ruston District  
USACE Mobile District  
USACE Vicksburg District  
USACE Mississippi Valley Division  
USGS Mississippi District  
SRH Climate, Weather and Water Division  
Lower Mississippi River Forecast Center  
Pearl River Valley Water Supply District  
Hydrologic Information Center  
Southern Region Climate Center  
Pat Harrison Waterway District  
Pearl River Basin Development District